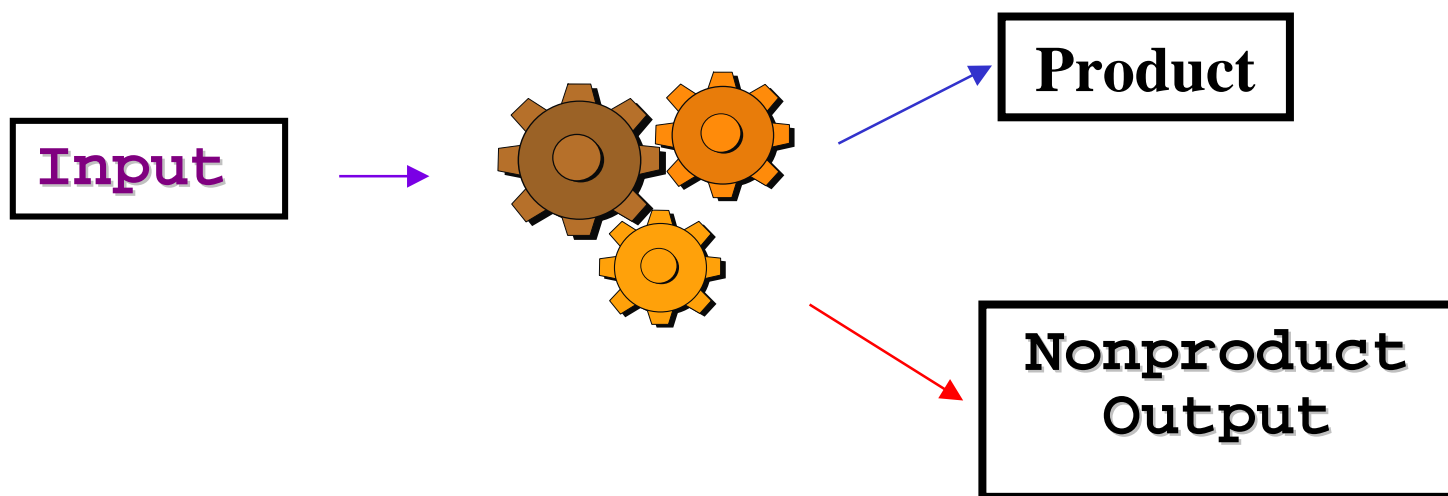




NEW JERSEY POLLUTION PREVENTION PLAN SUMMARY
FOR POLLUTION PREVENTION PLANS COVERING THE PERIOD
JANUARY 1, 2004 TO DECEMBER 31, 2008
(Form DEP-113)

REVISED 2003 INSTRUCTIONS



*Completion is Mandatory
and
Submission is due by
JULY 1, 2004*

NEW JERSEY POLLUTION PREVENTION PLAN SUMMARY
FOR POLLUTION PREVENTION PLANS COVERING THE PERIOD
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INSTRUCTIONS FOR THE
2003 NJDEP POLLUTION PREVENTION PLAN SUMMARY
FOR POLLUTION PREVENTION PLANS COVERING THE PERIOD
JANUARY 1, 2004 TO DECEMBER 31, 2008
(Form DEP-113)

RETURN COMPLETED PLAN SUMMARY FORM TO:
New Jersey Dept. of Environmental Protection
Office of Pollution Prevention and Right to Know
P.O. Box 443
Trenton, New Jersey 08625-0443

**IF THE FACILITY HAVE QUESTIONS REGARDING THE POLLUTION PREVENTION PLAN
SUMMARY,
CALL THE NJDEP OFFICE OF POLLUTION PREVENTION & RIGHT TO KNOW AT:
(609) 777-0518**

The NJDEP has developed a Guidance Document to help facilities prepare their Pollution Prevention Plans. Entitled Industrial Pollution Prevention Planning, the Guidance Document walks facilities through the requirements under the NJ Pollution Prevention Act and also provides helpful recommendations and guidance. The Plan Summary Form instructions sometimes refer to parts of the NJDEP Pollution Prevention Guidance Document. If the facility does not have a copy of the Guidance Document, visit our web site at www.state.nj.us/dep/opppc, or call the NJDEP Office of Pollution Prevention and Right to Know at (609) 777-0518.

WHAT ARE COVERED FACILITIES REQUIRED TO DO?

Facilities covered under the New Jersey Pollution Prevention Act are required to prepare three documents in accordance with N.J.A.C.7:1K et seq. The first is a comprehensive Pollution Prevention Plan that remains on-site at the facility. The Guidance Document referenced above explains in detail how to prepare the Pollution Prevention Plan. The second required document is the completion and submission the Pollution Prevention Plan Summary (DEP-113). The Plan Summary is, as it name implies, a summary of the facility Pollution Prevention Plan. Both the Plan Summary and the full Pollution Prevention Plan are completed once every five years. Facilities in the Standard Industrial Classification (SIC) Codes 26, 28, 30, 33 and 34 must have their Pollution Prevention Plans prepared and their Plan Summaries submitted to NJDEP by July 1, 2004. Both documents should cover activities at the facility for the five-year planning period January 1, 2004 to December 31, 2008. Calendar year **2003** will serve as the **base year** for measurement purposes for these facilities.

In addition to submitting a five-year Plan Summary, the third document that facilities are required to prepare is an annual Pollution Prevention Progress Report, which must be submitted to the NJDEP by July 1, 2005 in one of two versions, either of which satisfy the requirement of the Progress Report:

- 1) Reporting Option 1: Complete the Pollution Prevention Process-level Data Worksheet(s) (P2-115),

- which is now required to be included in the Pollution Prevention Plan kept on site; or**
- 2) Reporting Option 2: Complete Sections C and D of the Release and Pollution Prevention Report (RPPR or DEQ-114).

Either version is submitted together with Sections A and B of the Release and Pollution Prevention Report (RPPR or DEQ-114). Details on the two versions of the Pollution Prevention Progress Report are given in the 2004 RPPR Instructions.

WHAT FACILITIES ARE COVERED?

Any industrial facility in New Jersey required to submit at least one Toxics Chemical Release Inventory (TRI) reporting **Form R** to the United States Environmental Protection Agency (USEPA) under Section 313 of the federal Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. 11023) is covered under the New Jersey Pollution Prevention Act.

If the facility is covered under the New Jersey Pollution Prevention Act and is within one of the SIC Codes listed below and described in Appendix 2, the facility must prepare Pollution Prevention Plan and submit Pollution Prevention Plan Summary and Progress Reports by the indicated dates. The facility is not required to submit the full Pollution Prevention Plan to NJDEP. The Pollution Prevention Plan remains on-site at the facility and is subject to inspection by NJDEP.

Facilities with base year 2003 (SIC 26, 28, 30, 33 and 34):

Pollution Prevention Plans must be prepared and Plan Summaries submitted by July 1, 2004. The first Progress Report associated with this cycle is to be submitted by July 1, 2005. In subsequent years of the planning cycle, Progress Reports must be submitted by July 1 of 2006, 2007, 2008, and 2009. Progress reports for the final year of the previous cycle, 1998-2003, must be submitted by July 1, 2004.

Facilities with base year 2000 (SIC 20, 21, 22, 23, 24, 25, 27, 29, 31, 32, 35, 36, 37, 38 and 39):

Pollution Prevention Plans were prepared and Plan Summaries were to be submitted by July 1, 2001, and the first Progress Report associated with this cycle was submitted by July 1, 2002. In subsequent years of the planning cycle, Progress Reports were or are to be submitted by July 1 of 2003, 2004, 2005 and 2006.

Facilities with base year 1999 (SIC 4911, 4931, 4939, 4953, 5169 and 5171):

Pollution Prevention Plans were prepared and Plan Summaries were to be submitted July 1, 2000. The first Progress Report associated with this cycle was submitted by July 1, 2001. In subsequent years of the planning cycle, Progress Reports were or are to be submitted by July 1 of 2002, 2003, 2004, and 2005.

NOTE: If the facility is not required to submit a Form R, but have submitted a Form R or an RPPR in the past, the facility should notify NJDEP of facility's present status. To notify the Department, simply submit Section A of the Release and Pollution Prevention Report to:

NJDEP
Office of Pollution Prevention and Right to Know
P.O. Box 443
Trenton, NJ 08625-0443

Please include a statement that the facility is no longer covered by the TRI (Form R) reporting requirements

and include an explanation why the facility is no longer covered (e.g., below threshold, etc.).

WHAT HAZARDOUS SUBSTANCES ARE COVERED?

The list of hazardous substances reportable on the Pollution Prevention Plan Summary is the same list as the Section 313 Toxic Chemical List that applies to the Federal Form R. If the facility manufactured any of these hazardous substances in quantities of 10,000 pounds or more during the base year, or above listed threshold quantities for persistent bioaccumulative toxic (PBT) chemicals listed in the table below, the facility must include them in Pollution Prevention Plan and in Pollution Prevention Plan Summary form.

*Persistent, Bioaccumulative, and Toxic Chemicals covered by
the USEPA October 29, 1999 PBT Rule and the January 17, 2001 Lead Rule*

<i>Chemical Name or Chemical Category</i>	<i>RTK Number</i>	<i>CAS # (Group #)</i>	<i>Section 313 Reporting Threshold (in pounds unless noted otherwise)</i>
Aldrin	0033	309-00-2	100
Benzo(g,h,i)perylene	2968	191-24-2	10
Chlordane	0361	57-74-9	10
Dioxin and dioxin-like compounds category ^{1,3}	3760	N150	0.1 gram
Heptachlor	0974	76-44-8	10
Hexachlorobenzene	0978	118-74-1	10
Isodrin	2499	465-73-6	10
Lead ²	1096	7439-92-1	100
Lead compounds category ²	2266	N420	100
Mercury	1183	7439-97-6	10
Mercury compounds	2414	N458	10
Methoxychlor	1210	72-43-5	100
Octachlorostyrene	3761	29082-74-4	10
Pendimethalin	3415	40487-42-1	100
Pentachlorobenzene	3417	608-93-5	10
Polychlorinated biphenyls (PCBs)	1554	1336-36-3	10
Polycyclic aromatic compounds category ^{3,4}	3758	N590	100
Tetrabromobisphenol A	3763	79-94-7	100
Toxaphene	1871	8001-35-2	10
Trifluralin	1918	1582-09-8	100

1. Qualifier: "manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical".
2. The lower reporting thresholds apply to lead and all lead compounds, except for lead contained in stainless steel, brass, and bronze alloys. For the federal TRI, lead contained in stainless steel, brass, and bronze alloys remains reportable under the 25,000-pound manufacture and process reporting threshold and the 10,000-pound otherwise use reporting threshold. For the state RPPR, lead contained in stainless steel, brass, and bronze alloys remains reportable under the 10,000-pound manufacture, process and otherwise use reporting threshold.
3. See Appendix C of the 2003 RPPR instructions for the specific substances reportable under this category.
4. Two chemicals, benzo(j,k)fluorene (206-44-0) and 3-methylcholanthrene (56-49-5), were added to this category effective RY 2000.

WHAT INFORMATION IS CONTAINED IN THE PLAN SUMMARY?

The Pollution Prevention Plan Summary is based on information contained in the facility Pollution Prevention Plan. Completing the Summary entails lifting information directly from the Pollution Prevention Plan and entering it on the Pollution Prevention Plan Summary form.

There are four sections to the Pollution Prevention Plan Summary:

Section A asks for general facility information. Fill this section out ONCE for each facility submitting a Plan Summary.

Section B asks for information on the facility's five-year reduction goals for each covered hazardous substance at the facility. (If there are more than 16 substances, add other sheets as necessary.)

Section C asks for information on each production process that uses covered hazardous substances or generates hazardous substances as nonproduct output (NPO). Photocopy and fill out one of these sections for EACH covered production process or grouped process.

Section D asks for information on the facility five-year reduction goals for those processes or grouped processes identified in Section C that are targeted for pollution prevention planning. Photocopy and fill out one Section D for EACH targeted production process or grouped process.

SECTION A. GENERAL FACILITY INFORMATION

Complete one Section A for each facility submitting a Plan Summary. Please make sure that Section A is the first page of submittal.

Mailing Address and Facility Location Boxes: Check the mailing address, the facility location address (if different from the mailing address), the Facility Identification Number (FACID) (formerly the New Jersey Employer Identification Number), and the Federal Employer Identification Number (FEIN), which appear at the top of the page. Cross out inaccurate information in red and replace with accurate information. If information is missing, please supply it.

Base Year Box: The base year is the calendar year as defined by SIC codes listed on page 2 of these instructions. If the Department has not already entered the base year for the facility, please enter applicable base year.

SIC Code: Enter the facility primary Standard Industrial Classification (SIC) Code here.

New, Modification and Renewal (these names don't reflect the following text!) Boxes: If this Pollution Prevention Plan Summary is the first one ever to be submitted to the Department, check the "New" box. If this Plan Summary reflects a modification to the facility Pollution Prevention Plan during a five-year cycle, check the "modification" box. If this Plan Summary is to be submitted for a subsequent five-year planning cycle, check the "renewal" box. (I rearranged these to follow the check boxes.)

1. **Telephone and FAX Numbers:** Enter the facility telephone number and FAX number.
- 2.a. **Highest Ranking Corporate Official at Facility:** Enter the name of the highest-ranking corporate official at this facility.
- 2.b. **Highest Ranking Official's Position/Title:** Enter the position or title of the highest-ranking corporate official at this facility.
3. **R&D and Pilot Plant Exemption:** Research and Development (R&D) and pilot laboratories, as well as R&D and pilot facilities, are exempt from submitting the Pollution Prevention Plan Summary. To obtain an exemption from Pollution Prevention reporting, the facility must have received an R&D Laboratory Exemption from the NJDEP Community Right to Know (CRTK) Program. This exemption covers both R&D and pilot laboratories and facilities. If the facility have already received an R&D exemption under the NJDEP CRTK Program, it "counts" as the facility's R&D and/or pilot exemption under the Pollution Prevention Program. Enter the R&D exemption approval number assigned to the facility by the NJDEP CRTK Program here.

If the facility have not obtained an approved R&D exemption from the NJDEP CRTK Program, but would like to apply for such exemption, contact the NJDEP CRTK Program at: (609) 984-3219.

- 4.a. **Total Number of Processes:** Enter the total number of processes that involve hazardous substances at the facility. These processes are the ones identified in the facility Pollution Prevention Plan. This number must equal the number of Section C's that file in this Plan Summary. See the planning Guidance Document for guidance on Process Identification and Grouping.
- 4.b. **Number of Targeted Processes:** Facilities may target a subset of their total production processes. Facilities that do not target a subset of processes must target all of their processes. One Section D is required for each targeted process. The criterion that a facility must use if it wants to target a production process is that the number of targeted processes must equal at least 90% of the total amount of hazardous substances used or generated as nonproduct output or released at the facility. The facility can find guidance on targeting in the Guidance Document. Enter the number of processes or grouped processes that the facility has targeted.
- 4.c. **Basis for Targeting:** Enter the code "U," "N," "R," or "A" to indicate whether the facility chose to target production processes that equal at least 90% of the total Use (U), generation of nonproduct output (N) or total environmental releases (R) of all hazardous substances at the facility. If a facility chooses to target all production processes, enter "A" in the box.

5. **Confidential Information:** If the facility Pollution Prevention Plan Summary contains confidential information, the facility is required to submit two versions of the Plan Summary to NJDEP. The facility should refer to the Pollution Prevention Program Requirements, N.J.A.C. 7:1K-1 et seq., which contain all information needed to comply with confidentiality requirements. One version should be a public copy (called the "Preliminary Public Copy") of the Plan Summary on which the confidential information is deleted. The second version should contain the confidential information and the facility should identify its confidentiality in the following three ways: 1) the confidential information on this version should be clearly highlighted or underscored; 2) every page of the confidential version should be clearly marked "CONFIDENTIAL" except

for the first page which should be marked "CONFIDENTIAL COPY"; and 3) the confidential version should be placed in a sealed envelope marked "CONFIDENTIAL" on both sides with facility name and ID number marked as well, enclosed in a second envelope for mailing which shall bear no markings indicating confidentiality, and submitted to NJDEP, Office of Pollution Prevention and Right to Know, P.O. Box 443, Trenton, NJ 08625-0443 along with the public copy. This specific procedure is important to ensure that all confidential information is kept sealed. The confidential copy should be sent by certified mail, return receipt requested, or by other means providing a receipt for delivery. Included on the confidential copy should be the name and address of the facility and the name and address of the person at that facility designated to receive inquiries from NJDEP regarding the confidentiality claim.

Place a "Y" in box **5.a.** if Pollution Prevention Plan Summary contains information that the facility claims is confidential and an "N" if it does not. If the facility have entered a "Y" in box **5.a.**, the facility must indicate which type of copy this report is, the confidential copy or the preliminary public copy. Place a "C" in box **5.b.** if this report is the confidential report. If the facility have entered an "N" in box **5.a.**; box **5.b.** should be left blank.

6.a. Union Representative at Facility, (if applicable): Enter the name of the union representative at this facility. If there is none, enter "NA" for "Not Applicable."

6.b. Union Representative Telephone Number: Enter the business phone number of the union representative. If there is no facility representative, enter "NA."

6.c. Name of Union/Local #: Enter the name of Union and Local #. If there is no Union at this facility, enter "NA."

7. Certification: The owner or operator of the facility must certify that a full Pollution Prevention Plan has been prepared for the facility and that it is available at the facility for inspection by the Department. Certify by signing in the box marked "Signature." Enter the appropriate information in the other boxes.

SECTION B. FACILITY-LEVEL INFORMATION

Fill in Section B data for each covered hazardous substance at the facility. If the facility have more than 16 hazardous substances, use the blank Section B provided to make photocopies as necessary.

Tracking Information: Check the accuracy of the facility name, FACID (Facility Identification) and FEIN (Federal Employer Identification Number). If any of this information is inaccurate, cross it out and write the accurate information above it in red. If the facility name, FACID or FEIN is missing, please supply it.

1. CAS number or Category number: Enter the Chemical Abstract Service (CAS) number or Compound Category number for the covered substance. For a list of currently covered hazardous substances and CAS numbers (or Compound Category numbers), check the most recent version of the NJ Release and Pollution Prevention Report (RPPR) instructions.

2. Hazardous Substance: Enter the name of the covered substance. For a list of currently covered hazardous substances and CAS numbers (or Compound Category numbers), check the most recent version of the NJ Release and Pollution Prevention Report (RPPR) instructions.

3. Five Year Facility-Level NPO and USE Reduction Goals: To complete this section, the facility will need to refer to the facility Pollution Prevention Plan, which must include a section on the facility's goals for reducing USE and Nonproduct Output (NPO). These goals should be consistent with the goals developed in the facility Pollution Prevention Plan.

The facility Pollution Prevent Plan should have produced reduction goals for both the USE and NPO of hazardous substances due to pollution prevention techniques. Record the facility-level goals here for each hazardous substance.

3.a. Five Year Use Reduction Goal (pounds): Enter the five year USE reduction goal in pounds for this substance from the facility Pollution Prevent Plan. This should be the difference in pounds in the amount of the substance the facility used in the base year (2003) and the amount the facility expect to use in calendar year 2008. State the facility reduction goal assuming constant production, that is, assuming that the facility will be producing the same quantity of product in five years as was produced in the base year. These goals should reflect planned reductions due to pollution prevention measures only. The goals should not include reductions resulting from discontinued operations or operations sent to another facility, as these measures do not qualify as pollution prevention under the statutory definition. The facility may have a goal of zero for certain hazardous substances, if no reductions are planned.

3.b. Five Year NPO Reduction Goal (pounds): Enter the five year NPO reduction goal in pounds for this substance from the facility Pollution Prevent Plan. This should be the difference in pounds between the amount of the substance the facility generated as NPO in the base year and the amount of NPO the facility expect to generate in calendar year 2008. State the facility reduction goal assuming constant production, that is, assuming that the facility will be producing the same quantity of product in five years as was produced in the base year. These goals should reflect planned reductions due to pollution prevention measures only. The goals should not include reductions resulting from discontinued operations or operations sent to another facility, as these measures do not qualify as pollution prevention under the statutory definition. The facility may have a goal of zero for certain hazardous substances, if no reductions are planned.

3.c. Five Year Use Reduction Goal (percent): Enter the percentage of the base year (2003) USE that the facility plans to cut by the goal year (2008). Find the five-year USE reduction percent goal by doing the following calculation:

$$\frac{\text{Five year USE reduction goal (pounds)}}{\text{Base year USE (pounds)}} \times 100 = \text{Five Year USE \% Reduction Goal}$$

3.d. Five Year NPO Reduction Goal (percent): Enter the percentage of the base year (2003) NPO that the facility plans to cut by the goal year (2008). Find the five year NPO reduction percent goal by doing the following calculation:

$$\frac{\text{Five year NPO reduction goal (pounds)}}{\text{Base Year NPO (pounds)}} \times 100 = \text{Five Year NPO \% Reduction Goal}$$

SECTION C. PROCESS DESCRIPTION

Fill out one Section C for each process and grouped process that USES, generates as NPO, or RELEASES a covered hazardous substance. The number of these sections the facility submits must equal the number the facility entered in Question **4.a.** of Section A.

Tracking Information: Check the accuracy of the facility name, FACID and FEIN. If any of this information is inaccurate, cross it out and write the accurate information above it in red. If the facility name, FACID or FEIN is missing, supply it.

1. Process ID: Enter an identifier, defined by the facility, to be used to refer to the process described in this Section throughout the facility's pollution prevention reporting. The same identifier must be used in the facility's Pollution Prevention Plan, Pollution Prevention Plan Summary, and Pollution Prevention Progress Reports. The identifiers must be unique, applying to only one process (or grouped process). The identifier may be up to 12 characters long and may consist of letters, numerals, or both.

2. Product SIC code: Enter the 4-digit SIC code which most directly applies to the product of this process or grouped process. A list of applicable SIC codes is provided in Appendix 2. If a 4-digit code is too specific to adequately identify the product, the facility may use the first 3-digits. If a 3-digit code is too specific, use a 2-digit code. For example, the product of a process which makes both men's and women's footwear is not adequately identified with SIC code 3143 (men's footwear), or with SIC code 3144 (women's footwear). SIC code 314, however, is the adequate identifier.

Note that most major 2-digit SIC code groups contain 4-digit codes which describe products in a general way. For example, SIC code 28 contains 2819 (industrial inorganic chemicals, not elsewhere classified) and 2869 (industrial organic chemicals, not elsewhere classified). Broad 4-digit codes like these, or 3-digit codes, should only be used when another 4-digit code does not adequately identify the product of the process or grouped process.

3.a. Process Category: Indicate whether this process or grouped process (1) manufactures a chemical, (2) manufactures an article, (3) stores and/or handles hazardous substances, or (4) treats and/or recycles (out-of-process) NPO. Fill in the box for the category that best fits the process or grouped process. The storage and handling process category should be chosen when the process or grouped process is solely storage and handling. Descriptions of these categories are as follows.

1. Chemical manufacturing usually combines chemical ingredients to produce a chemical product. If this process consumes (molecularly alters) a chemical, then it is almost always a chemical manufacturing process. If the product of a process could be identified with a single CAS number, then the process is clearly a chemical manufacturing process.

2. **Article manufacturing** usually produces discrete items with an identity that is not encompassed by a specific chemical name. Chemicals used in article manufacturing are seldom consumed; they may be mixed and combined into an article, or used in some way in the production of the article, such as in a solvent cleaner or degreasing step.

3. **Storage and Handling Processes** generally involve storing raw materials prior to use, storing materials recycled on-site prior to use, storing wastes prior to disposal, storing final product or handling hazardous substances through transfers from one area of the facility to another. If there is a storage and handling component of another process, choose the category that fits the parent process rather than "storage and handling."

4. **Treatment and Recycling Operations** involve the treatment or recycling of hazardous substances that leave a process as NPO. These operations must be identified when they use hazardous substances as part of the treatment or recycling process. Remember that treatment and recycling processes may not be grouped together with or as part of other processes.

3.b. Mode of Operation: Indicate one mode of operation that best describes how this process is run, either batch or continuous, by entering a "B" for batch or a "C" for continuous. For Treatment/Recycling and Storage/Handling processes, enter "N" for Not Applicable.

Descriptions of the two modes of operation follow:

A **batch process** will have an identifiable beginning and end over a relatively short time frame. It will entail inputting a set amount of raw materials at the beginning and perhaps during the process to produce a set amount of product at the end. Examples include the formulation of a set quantity of a certain color pigment or a run of a particular pattern of wall covering.

A **continuous process** involves a continuous flow of raw material inputs to produce a continuous flow of outputs. An example is the production of gasoline and other fuels from crude oil.

3.c. Specific Descriptions: For each step in the process or grouped process, enter the code corresponding to the most applicable descriptor from the list found in Appendix 3. For instance, a process that makes adhesive tape might involve three steps: mixing an adhesive resin with a solvent, applying this mixture to paper backing, and driving the solvent from the tape with a dryer. The appropriate process descriptors from Appendix 3 would be UC1, "Mixing"; AA6, "Coating -- adhesive application"; and UA9, "Drying."

The descriptor list includes "similar to" and "other" categories. Use these only if another descriptor is inadequate to identify the process step. Augment the facility's description if necessary in the space provided, or attach a separate sheet that generically describes the step, perhaps by indicating a term not found on the list that would suffice. Enter a descriptor for each discrete step until the entire process is described. Descriptors for waste treatment processes are found in Appendix 4. If additional pages are necessary, indicate at the top of each sheet that it appends Section C, Question C.3.c. and indicate the Process Identifier (entered at item 1 of this Section C) for the process as well as facility name, FACID and FEIN number.

3.d. Hazardous substances used or generated by this process: List each covered hazardous substance used or generated by this process, using both its name and its CAS number or Compound Category number.

If more than six hazardous substances are used or generated by the process, attach an additional sheet. Indicate at the top of the sheet that it appends Question C.3.d. and indicate the Process Identifier (entered at item 1 of this Section C) for the process as well as facility name, FACID and FEIN number.

4. Targeted Processes: Indicate "Y" for "Yes" if this process was targeted in the facility Pollution Prevention Plan, otherwise indicate "N" for "No." Remember that a facility must target any combination of processes or sources that contribute to at least 90% of the facility's USE, NPO or releases. Otherwise, all processes must be targeted.

5. Grouped Processes: In Pollution Prevention Plan, the facility could have associated several processes together into a single grouped process that would be treated as a single process for the purposes of pollution prevention planning. Mark "Y" for "Yes" if this process is a grouped process; otherwise mark "N" for "No."

SECTION D. TARGETED PROCESS INFORMATION

Fill out one of these sections for each targeted production process the facility has identified in the Pollution Prevention Plan. This section summarizes 5-year USE and NPO reduction goals for each hazardous substance used in the process. Instructions for specific questions follow. The number of these sections that the facility submits must equal the number the facility entered in Question 4.b. of Section A.

Tracking Information: Check the accuracy of the facility name, FACID and FEIN. If any of this information is inaccurate, cross it out and replace with accurate information in red. If the facility name, FACID or FEIN is missing, supply it.

Process Identifier (top of page, left side): Enter the process ID the facility chose in Section C for the process or grouped process. The same identifier must be used in the facility's Pollution Prevention Plan, Pollution Prevention Plan Summary, and Pollution Prevention Progress Reports.

1. Five Year Reduction Goals for Hazardous Substances used in Process or Grouped Process

1.a. & 1.b. Five Year Substance-Specific Reduction Goals: For each hazardous substance used or generated by the process, enter its CAS number or Compound Category number in 1.a. and name in 1.b. There are seven boxes available for listing hazardous substances; each of the seven boxes is split by a dotted line. Enter the CAS number or Compound Category number above the dotted line and the name of the hazardous substance below it. Use additional pages if necessary. Be sure to indicate at the top of any additional page which item it appends and indicate the Process Identifier as well as the facility name, FACID and FEIN.

1.c. Use Range: After identifying each hazardous substance, enter a letter indicating the USE range of the hazardous substance in this targeted process (A=0-4,999 lbs.; B=5,000-9,999 lbs.; C=10,000-24,999 lbs.; D=25,000-49,999 lbs.; E=50,000 lbs. or more). Remember: USE = Quantity consumed + Quantity shipped as (or in) product + NPO.

1.d. Description of Pollution Prevention Techniques: For each substance, enter the code(s) that describe the pollution prevention technique(s) the facility plan to use to reduce USE or generation of hazardous substances over the next five years. The list of codes appears in Appendix 1 of these instructions. If none of the codes adequately describe the pollution prevention technique(s) the facility have chosen, enter "Other" and attach additional sheets that contain generic nomenclature describing the technique the facility will use. If more than one technique will be used to achieve the reductions for a specific hazardous substance involved with the process, list them in the same space, if room permits. Use additional pages if necessary. Be sure to indicate at the top of any additional page which item it appends and indicate the Process Identifier as well as facility name, FACID and FEIN.

1.e. Five Year Reduction per Unit of Product Percent Goals: In the adjacent boxes enter the process-level reduction per unit of product goals for each hazardous substance used or generated as NPO by this targeted process, as a percentage reduction from the base year. Include reduction goals for both USE per unit of product **e.1.** and NPO per unit of product **e.2.**

EXAMPLE: A process that produces metal tools presently generates 100 pounds of solvent as NPO per 1000 items. The facility's Pollution Prevention Plan goal for this process is 10 pounds NPO per 1000 items; therefore the facility's NPO per unit of product goal is to move from 100/1000 (0.1) to 10/1000 (0.01). The reduction sought is a reduction from 100 pounds to 10 pounds per 1000 items, or 0.1 pound to 0.01 pound per single item. This is an NPO reduction goal of 90%.

1.f. & 1.g. Estimated Date of Introduction and Completion: For each technique or group of techniques associated with a specific hazardous substance, enter the estimated date when work on any of the techniques will begin (1.f.) and the estimated date when any of the techniques will be completed (1.g.). This summarizes the facility's implementation schedule. If a technique was begun prior to the base year and implementation continues, state the date when the technique was begun.

2. (Optional) Raw Material Substitution Certification: (Complete only if the facility wants to establish that raw material substitution is not feasible.) There are many pollution prevention techniques; raw material substitution is only one of them. The Pollution Prevention Act recognizes that there are situations in which a specific hazardous substance is the only raw material that will produce a desired product. Therefore, facilities may publicly establish, through a raw material substitution certification, that there is no way to reduce the USE and/or NPO of a specific substance in a specific process through substitution of a non-hazardous substance. Facilities self-certify their own raw material substitution certification on the basis of a completed Plan. It does not, however, excuse the facility from looking for pollution prevention that does not involve raw material substitution.

To self-certify the raw material substitution certification in the Pollution Prevention Plan Summary, a facility must:

2.a. Identify the hazardous substance(s) for which the certification is being made. Enter the name of one or more hazardous substances (from Question 1 of this section).

2.b. Explain why raw material substitution cannot be accomplished for the hazardous substance(s). Enter

a brief narrative explanation. For instance, "This process makes PVC pipe. The hazardous substance vinyl chloride is an essential component of PVC."

2.c. Sign the certification as indicated. Also, type or print the name of the certifying individual and the person's position or title.

RETURN COMPLETED PLAN SUMMARY FORM TO:

New Jersey Dept. of Environmental Protection
Office of Pollution Prevention and Right to Know
P.O. Box 443
Trenton, New Jersey 08625-0443

**IF THE FACILITY HAVE QUESTIONS REGARDING THE POLLUTION PREVENTION PLAN
SUMMARY,
CALL THE NJDEP OFFICE OF POLLUTION PREVENTION & RIGHT TO KNOW AT:
(609) 777-0518**

Appendix 1

POLLUTION PREVENTION METHODS¹

(Adapted from EPA Form R Instructions)

Use for Section D, question 1.

Good Operating Practices

- W13 Improved maintenance scheduling, record keeping, or procedures
- W14 Changed production schedule to minimize equipment and feedstock changeovers
- W19 Other changes in operating practices

Inventory Control

- W21 Instituted procedures to ensure that materials do not stay in inventory beyond shelf life
- W22 Began to test outdated material - continue to use if still effective
- W23 Eliminated shelf-life requirements for stable materials
- W24 Instituted better labeling procedures
- W25 Instituted clearinghouse to exchange materials that would otherwise be discarded
- W29 Other changes in inventory control

Spill and Leak Prevention

- W31 Improved storage or stacking procedures
- W32 Improved procedures for loading, unloading, and transfer operations
- W33 Installed overflow alarms or automatic shutoff valves
- W35 Installed vapor recovery systems
- W36 Implemented inspection or monitoring program of potential spill or leak sources
- W39 Other spill and leak prevention

Raw Material Modifications

- W41 Increased purity of raw materials
- W42 Substituted raw materials not on the TRI list
- W49 Other raw material modifications

Process Modifications

- W51 Instituted recirculation within a process
- W52 Modified equipment, layout, or piping
- W53 Use of a different process catalyst
- W54 Instituted better controls on operating bulk containers to minimize discarding of empty containers
- W55 Changed from small volume containers to bulk containers to minimize discarding of empty containers
- W58 Other process modifications

Cleaning and Degreasing

- W59 Modified stripping/cleaning equipment
- W60 Changed to mechanical stripping/cleaning devices (from solvents or other materials)
- W61 Changed to aqueous cleaners (from solvents or other materials)
- W63 Modified containment procedures for cleaning units
- W64 Improved drainage procedures
- W65 Redesigned parts racks to reduce dragout
- W66 Modified or installed rinse systems
- W67 Improved rinse equipment design
- W68 Improved rinse equipment operation
- W71 Other cleaning and degreasing modifications

Surface Preparation and Finishing

- W72 Modified spray systems or equipment
- W73 Substituted coating materials used
- W74 Improved application techniques
- W75 Changed from spray to other system
- W78 Other surface preparation and finishing modifications

Product Modifications

- W81 Changed product specifications
- W82 Modified design or composition
- W83 Modified packaging
- W89 Other product modifications

On-Site Recycling Processes

NOTE: On-Site Recycling is considered pollution prevention ONLY IF IN-PROCESS (See N.J.A.C. 7:1K-1.5).

- R11 Solvents/organic recovery - batch still distillation
- R12 Solvents/organic recovery - thin-film evaporation
- R13 Solvents/organic recovery - fractionation
- R14 Solvents/organic recovery - solvent extraction
- R19 Solvents/organic recovery - other
- R21 Metals recovery - electrolytic
- R22 Metals recovery - ion exchange
- R23 Metals recovery - acid leaching
- R24 Metals recovery - reverse osmosis
- R26 Metals recovery - solvent extraction
- R27 Metals recovery - high temperature
- R28 Metals recovery - retorting
- R29 Metals recovery - secondary smelting
- R30 Metals recovery - other
- R40 Acid regeneration
- R99 Other reuse or recovery

Appendix 2

SIC CODES SUBJECT TO POLLUTION PREVENTION PLANNING

10 METAL MINING

1021 Copper Ores
1031 Lead and Zinc Ores
1041 Gold Ores
1044 Silver Ores
1061 Ferroalloy Ores, Except Vanadium
1099 Miscellaneous Metal Ores, Not Elsewhere Classified

12 COAL MINING

1221 Bituminous Coal and Lignite Surface Mining
1222 Bituminous Coal Underground Mining
1231 Anthracite Mining

20 FOOD AND KINDRED PRODUCTS

2011 Meat Packaging Plants
2013 Sausages and Other Prepared Meat Products
2015 Poultry Slaughtering and Processing
2021 Creamery Butter
2022 Natural, Processed, and Imitation Cheese
2023 Dry, Condensed, and Evaporated Dairy Products
2024 Ice Cream and Frozen Desserts
2026 Fluid Milk
2032 Canned Specialties
2033 Canned Fruits, Vegetables, Preserves, Jams, and Jellies
2034 Dried and Dehydrated Fruits, Vegetables, and Soup Mixes
2035 Pickled Fruits and Vegetables, Vegetable Sauces and Seasonings, and Salad Dressings
2037 Frozen Fruits, Fruit Juices, and Vegetables
2038 Frozen Specialties, Not Elsewhere Classified
2041 Flour and Other Grain Mill Products
2043 Cereal Breakfast Food
2044 Rice Milling
2045 Prepared Flour Mixes and Dough
2046 Wet Corn Milling
2047 Dog and Cat Food
2048 Prepared Feeds and Feed Ingredients for Animals and Fowls, Except Dogs and Cats
2051 Bread and Other Bakery Products, Except Cookie and Crackers
2052 Cookies and Crackers
2053 Frozen Bakery Products, Except Refining Bread
2061 Cane Sugar, Except Refining
2062 Cane Sugar Refining
2063 Beet Sugar
2064 Candy and Other Confectionery Products
2066 Chocolate and Cocoa Products
2067 Chewing Gum
2068 Salted and Roasted Nuts and Seeds
2074 Cottonseed Oil Mills
2075 Soybean Oil Mills
2076 Vegetable Oil Mills, Except Corn, Cottonseed, and Soybean
2077 Animal and Marine Fats and Oils
2079 Shortening, Table Oils, Margarine, and Other Edible Fats and Oil, Not Elsewhere Classified
2082 Malt Beverages
2083 Malt
2084 Wines, Brandy, and Brandy Spirits
2085 Distilled and Blended Liquors
2086 Bottled and Canned Soft Drinks and Carbonated Waters

2087 Flavoring Extracts and Flavoring Syrups, Not Elsewhere Classified
 2091 Canned and Cured Fish and Seafood
 2092 Prepared Fresh or Frozen Fish and Seafood
 2095 Roasted Coffee
 2096 Potato Chips, Corn Chips, and Similar Snacks
 2097 Manufactured Ice
 2098 Macaroni, Spaghetti, Vermicelli, and Noodles
 2099 Food Preparations, Not Elsewhere Classified

21 TOBACCO MANUFACTURING

2111 Cigarettes
 2121 Cigars
 2131 Chewing and Smoking Tobacco and Snuff
 2141 Tobacco Stemming and Redrying

22 TEXTILE MILL PRODUCTS

2211 Broad woven Fabric Mills, Cotton
 2221 Broad woven Fabric Mills, Manmade Fiber and Silk
 2231 Broad woven Fabric Mills, Wool
 2241 Narrow Fabric and Other Small ware Mills: Cottonseed, Wool, Silk, and Other Manmade Fiber
 2251 Women's Full-Length and Knee-Length Hosiery, Except Socks
 2252 Hosiery, Not Elsewhere Classified
 2253 Knit Outerwear Mills
 2254 Knit Underwear and Nightwear Mills
 2257 Weft Knit Fabric Mills
 2258 Lace and Warp Knit Fabric Mills
 2259 Knitting Mills, Not Elsewhere Classified
 2261 Finishers of Broad woven Fabrics of Cotton
 2262 Finishers of Broad woven Fabrics of Manmade Fiber and Silk
 2269 Finishers of Textile. Not Elsewhere Classified
 2273 Carpets and Rugs
 2281 Yarn Spinning Mills
 2282 Yarn Texturing, Throwing, Twisting, and Winding Mills
 2284 Thread Mills
 2295 Coated Fabrics, Not Rubberized
 2296 Tire Cord and Fabrics
 2297 Non woven Fabrics
 2298 Cordage and Twine
 2299 Textile Goods, Not Elsewhere Classified

23 APPAREL AND OTHER TEXTILE PRODUCTS

2311 Men's and Boy's Suits, Coats, and Overcoats
 2321 Men's and Boy's Shirts, Except Work Shirts
 2322 Men's and Boy's Underwear and Nightwear
 2323 Men's and Boy's Neckwear
 2325 Men's and Boy's Separate Trousers and Slacks
 2326 Men's and Boy's Work Clothing
 2329 Men's and Boy's Clothing, Not Elsewhere Classified
 2331 Women's, Misses', and Juniors' Blouses and Shirts
 2335 Women's, Misses', and Juniors' Dresses
 2337 Women's, Misses', and Juniors' Suits, Skirts, and Coats
 2339 Women's, Misses', and Juniors' Outerwear Not Elsewhere Classified
 2341 Women's, Misses', Children's and Infants' Underwear and Nightwear
 2342 Brassieres, Girdles, and Allied Garments
 2353 Hats, Caps, and Millinery
 2361 Girls', Children's, and Infants Dresses, Blouses, and Shirts
 2369 Girls', Children's, and Infants Outerwear, Not Elsewhere Classified
 2371 Fur Goods
 2381 Dress and Work Gloves, Except Knit and All-Leather
 2384 Robes and Dressing Gowns
 2385 Waterproof Outerwear
 2386 Leather and Sheep-Linden Clothing
 2387 Apparel Belts

2389 Apparel and Accessories, Not Elsewhere Classified
2391 Curtains and Draperies
2392 House furnishings, Except Curtains and Draperies
2393 Textile Bags
2394 Canvas and Related Products
2395 Pleating, Decorative and Novelty Stitching, and Tucking for the Trade
2396 Automotive Trimmings, Apparel Findings, and Related Products
2397 Schiffli Machine Embroideries
2399 Fabricated Textile Products, Not Elsewhere Classified

24 LUMBER AND WOOD PRODUCTS

2411 Logging
2421 Sawmills and Planing Mills, General
2426 Hardwood Dimension and Flooring Mills
2429 Special Product Sawmills. Not Elsewhere Classified
2431 Millwork
2434 Wood Kitchen Cabinets
2435 Hardwood Veneer and Plywood
2436 Softwood Veneer and Plywood
2439 Structural Wood Members, Not Elsewhere Classified
2441 Nailed and Lock Corner Wood Boxes and Shook
2448 Wood Pallets and Skids
2449 Wood Containers, Not Elsewhere Classified
2451 Mobile Homes
2452 Prefabricated Wood Buildings and Components
2491 Wood Preserving
2493 Reconstituted Wood Products
2499 Wood Products, Not Elsewhere Classified

25 FURNITURE AND FIXTURES

2511 Wood Household Furniture, Except Upholstery
2512 Wood Household Furniture, Upholstered
2514 Metal Household Furniture
2515 Mattresses, Foundations, and Convertible Beds
2517 Wood Television, Radio, Phonograph, and Sewing Machine Cabinets
2519 Household Furniture, Not Elsewhere Classified
2521 Wood Office Furniture
2522 Office Furniture, Except Wood
2531 Public Building and Related Furniture
2541 Wood Office and Store Fixtures, Partitions, Shelving, and Lockers
2542 Office and Store Fixtures, Partitions, Shelving, and Lockers, Except Wood
2591 Drapery Hardware and Window Blinds and Shades
2599 Furniture and Fixtures, Not Elsewhere Classified

26 PAPER AND ALLIED PRODUCTS

2611 Pulp Mills
2621 Paper Mills
2631 Paperboard Mills
2652 Setup Paperboard Boxes
2653 Corrugated and Solid Fiber Boxes
2655 Fiber Cans, Tubes, Drums, and Similar Products
2656 Sanitary Food Containers, Except Folding
2657 Folding Paperboard Boxes, Including Sanitary
2671 Packaging Paper and Plastics Film, Coated and Laminated
2672 Coated and Laminated Paper, Not Elsewhere Classified
2673 Plastics, Foil, and Coated Paper Bags
2674 Uncoated Paper and Multiwall Bags
2675 Die-Cut Paper and Paperboard and Cardboard
2676 Sanitary Paper Products
2677 Envelopes
2678 Stationery, Tablets, and Related Products
2679 Converted Paper and Paperboard Products, Not Elsewhere Classified

27 PRINTING AND PUBLISHING

2711 Newspapers: Publishing, or Publishing and Printing
 2721 Periodicals: Publishing, or Publishing and Printing
 2731 Books: Publishing, or Publishing and Printing
 2732 Book Printing
 2741 Miscellaneous Publishing
 2752 Commercial Printing, Lithographic
 2754 Commercial Printing, Gravure
 2759 Commercial Printing, Not Elsewhere Classified.
 2761 Manifold Business Forms
 2771 Greeting Cards
 2782 Blank books, Loose leaf Binders, and Devices
 2789 Bookbinding and Related Work
 2791 Typesetting
 2796 Plate making and Related Services

28 CHEMICALS AND ALLIED PRODUCTS

2812 Alkalies and Chlorine
 2813 Industrial Gases
 2816 Inorganic Pigments
 2819 Industrial Inorganic Chemicals, Not Elsewhere Classified
 2821 Plastic Materials, Synthetic Resins, and Nonvulcanizable Elastomers
 2822 Synthetic Rubber (Vulcanizable Elastomers)
 2823 Cellulosic Manmade Fibers
 2824 Manmade Organic Fibers. Except Cellulosic
 2833 Medicinal Chemicals and Botanical Products
 2834 Pharmaceutical Preparations
 2835 In Vitro and In Vivo Diagnostics Substances
 2836 Biological Products, Except Diagnostic Substances
 2841 Soap and Other Detergents, Except Specialty Cleaners
 2842 Specialty Cleaning, Polishing, and Sanitation Preparations
 2843 Surface Active Agents, Finishing Agents, Sulfonated Oils, and Assistants
 2844 Perfumes, Cosmetics, and Other Toilet Preparations
 2851 Paints, Varnishes, Lacquers, Enamels, and Allied Products
 2861 Gum and Wood Chemicals
 2865 Cyclic Organic Crudes and Intermediates, and Organic Dyes and Pigments
 2869 Industrial Organic Chemicals, Not Elsewhere Classified
 2873 Nitrogenous Fertilizers
 2874 Phosphatic Fertilizers
 2875 Fertilizers, Mixing Only
 2879 Pesticides and Agricultural Chemicals, Not Elsewhere Classified
 2891 Adhesives and Sealants
 2892 Explosives
 2893 Printing Ink
 2895 Carbon Black
 2899 Chemicals and Chemical Preparations, Not Elsewhere Classified

29 PETROLEUM AND COAL PRODUCTS

2911 Petroleum Refining
 2951 Asphalt Paving Mixtures and Blocks
 2952 Asphalt Felts and Coatings
 2992 Lubricating Oils and Greases
 2999 Products of Petroleum and Coal, Not Elsewhere Classified

30 RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS

3011 Tires and Inner Tubes
 3021 Rubber and Plastics Footwear
 3052 Rubber and Plastics Hose and Belting
 3053 Gaskets, Packing, and Sealing Devices
 3061 Molded, Extruded, and Lathe-Cut Mechanical Rubber Goods
 3069 Fabricated Rubber Products, Not Elsewhere Classified
 3081 Unsupported Plastics Film and Sheet
 3082 Unsupported Plastics Profile Shapes
 3083 Laminated Plastics Plate, Sheet, and Profile Shapes

3084 Plastics Pipe
3085 Plastic Bottle
3086 Plastic Foam Products
3087 Custom Compounding of Purchased Plastics Resins
3088 Plastics Plumbing Fixtures
2141 Plastics Products, Not Elsewhere Classified

31 LEATHER AND LEATHER PRODUCTS

3111 Leather Tanning and Finishing
3131 Boot and Shoe Cut Stock and Findings
3142 House Slippers
3143 Men's Footwear, Except Athletic
3144 Women's Footwear, Except Athletic
3149 Footwear, Except Rubber, Not Elsewhere Classified
3151 Leather Gloves and Mittens
3161 Luggage
3171 Women's Handbags and Purses
3172 Personal Leather Goods, Except Women's Handbags and Purses
3199 Leather Goods, Not Elsewhere Classified

32 STONE, CLAY, AND GLASS PRODUCTS

3211 Flat Glass
3221 Glass Containers
3229 Pressed and Blown Glass and Glassware, Not Elsewhere Classified
3231 Glass Products, Made of Purchased Glass
3241 Cement, Hydraulic
3251 Brick and Structural Clay Tile
3253 Ceramic Wall and Floor Tile
3255 Clay Refractories
3259 Structural Clay Products, Not Elsewhere Classified
3261 Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories
3262 Vitreous China Table and Kitchen Articles
3263 Fine Earthenware (Whiteware) Table and Kitchen Articles
3264 Porcelain Electrical Supplies
3269 Pottery Products, Not Elsewhere Classified
3271 Concrete Block and Brick
3272 Concrete Products, Except Block and Brick
3273 Ready-Mixed Concrete
3274 Lime
3275 Gypsum Products
3281 Cut Stone and Stone Products
3291 Abrasive Products
3292 Asbestos Products
3295 Minerals and Earths, Ground or Otherwise Treated
3296 Mineral Wool
3297 Nonclay Refractories
3299 Nonmetallic Mineral Products, Not Elsewhere Classified

33 PRIMARY METAL INDUSTRIES

3312 Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills
3313 Electro metallurgical Products, Except Steel
3315 Steel Wire drawing and Steel Nails and Spikes
3316 Cold-Rolled Steel Sheet, Strip, and Bars
3317 Steel Pipe and Tubes
3321 Gray and Ductile Iron Foundries
3322 Malleable Iron Foundries
3324 Steel Investment Foundries
3325 Steel Foundries, Not Elsewhere Classified
3331 Primary Smelting and Refining of Copper
3334 Primary Production of Aluminum
3339 Primary Smelting and Refining of Nonferrous Metals, Except Copper and Aluminum
3341 Secondary Smelting and Refining of Nonferrous Metals
3351 Rolling, Drawing, and Extruding of Copper

3353 Aluminum Sheet, Plate, and Foil
 3354 Aluminum Extruded Products
 3355 Aluminum Rolling and Drawing, Not Elsewhere Classified
 3356 Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum
 3357 Drawing and Insulating of Nonferrous Wire
 3363 Aluminum Die-Castings
 3364 Nonferrous Die-Castings, Except Aluminum
 3365 Aluminum Foundries
 3366 Copper Foundries
 3369 Nonferrous Foundries, Except Aluminum and Copper
 3398 Metal Heat Treating
 3399 Primary Metal Products, Not Elsewhere Classified

34 FABRICATED METAL PRODUCTS

3411 Metal Cans
 3412 Metal Shipping Barrels, Drums, Kegs, and Pails
 3421 Cutlery
 3423 Hand and Edge Tools, Except Machine Tools and Handsaws
 3425 Saw Blades and Handsaws
 3429 Hardware, Not Elsewhere Classified
 3431 Enameled Iron and Metal Sanitary Ware
 3432 Plumbing Fixture Fittings and Trim
 3433 Heating Equipment, Except Electric and Warm Air Furnaces
 3441 Fabricated Structural Metal
 3442 Metal Doors, Sash, Frames, Molding, and Trim
 3443 Fabricated Plate Work (Boiler Shops)
 3444 Sheet Metal Work
 3446 Architectural and Ornamental Metal Work
 3448 Prefabricated Metal Buildings and Components
 3449 Miscellaneous Structural Metal Work
 3451 Screw Machine Products
 3452 Bolts, Nuts, Screws, Rivets, and Washers
 3462 Iron and Steel Forging
 3463 Nonferrous Forging
 3465 Automotive Stamping
 3466 Crowns and Closures
 3469 Metal Stampings, Not Elsewhere Classified
 3471 Electroplating, Plating, Polishing, Anodizing, and Coloring
 3479 Coating, Engraving, and Allied Services, Not Elsewhere Classified
 3482 Small Arms Ammunition
 3483 Ammunition, Except for Small Arms
 3484 Small Arms
 3489 Ordnance and Accessories, Not Elsewhere Classified
 3491 Industrial Valves
 3492 Fluid Power Valves and Hose Fittings
 3493 Steel Springs, Except Wire
 3494 Valves and Pipe Fittings, Not Elsewhere Classified
 3495 Wire Springs
 3496 Miscellaneous Fabricated Wire Products
 3497 Metal Foil and Leaf
 3498 Fabricated Pipe and Pipe Fittings
 3499 Fabricated Metal Products, Not Elsewhere Classified

35 MACHINERY, EXCEPT ELECTRICAL

3511 Steam, Gas, and Hydraulic Turbines, and Turbine Generator Set Units
 3519 Internal Combustion Engines, Not Elsewhere Classified
 3523 Farm Machinery and Equipment
 3524 Lawn and Garden Tractors and Home Lawn and Garden Equipment
 3531 Construction Machinery and Equipment
 3532 Mining Machinery and Equipment, Except Oil and Gas Field Machinery and Equipment
 3533 Oil and Gas Field Machinery and Equipment
 3534 Elevators and Moving Stairways
 3535 Conveyors and Conveying Equipment
 3536 Overhead Traveling Cranes, Hoists, and Monorail Systems
 3537 Industrial Trucks, Tractors, Trailers, and Stackers

3541 Machine Tools, Metal Cutting Types
 3542 Machine Tools, Metal Forming Types
 3543 Industrial Patterns
 3544 Special Dies and Tools, Die Sets, Jigs and Fixtures, and Industrial Molds
 3545 Cutting Tools, Machine Tool Accessories, and Machinists' Precision Measuring Devices
 3546 Power-Driven Hand tools
 3547 Rolling Mill Machinery and Equipment
 3548 Electric and Gas Welding and Soldering Equipment
 3549 Metalworking Machinery, Not Elsewhere Classified
 3552 Textile Machinery
 3553 Woodworking Machinery
 3554 Paper Industries Machinery
 3555 Printing Trades Machinery and Equipment
 3556 Food Products Machinery
 3559 Special Industry Machinery, Not Elsewhere Classified
 3561 Pumps and Pumping Equipment
 3562 Ball and Roller Bearings
 3563 Air and Gas Compressors
 3564 Industrial and Commercial Fans and Blowers and Air Purification Equipment
 3565 Packaging Machinery
 3566 Speed Changers, Industrial High-Speed Drives, and Gears
 3567 Industrial Process Furnaces and Ovens
 3568 Mechanical Power Transmission Equipment, Not Elsewhere Classified
 3569 General Industrial Machinery and Equipment, Not Elsewhere Classified
 3571 Electronic Computers
 3572 Computer Storage Devices
 3575 Computer Terminals
 3577 Computer Peripheral Equipment, Not Elsewhere Classified
 3578 Calculating and Accounting Machines, Except Electronic Computers
 3579 Office Machines, Not Elsewhere Classified
 3581 Automatic Vending Machines
 3582 Commercial Laundry, Dry cleaning, and Pressing Machines
 3585 Air Conditioning, Warm Air Heating Equipment and Commercial/Industrial Refrigeration Equipment
 3586 Measuring and Dispensing Pumps
 3589 Service Industry Machinery, Not Elsewhere Classified
 3592 Carburetors, Pistons, Piston Rings, and Valves
 3593 Fluid Power Cylinders and Actuators
 3594 Fluid Power Pumps and Motors
 3596 Scales and Balances, Except Laboratory
 3599 Industrial and Commercial Machinery and Equipment, Not Elsewhere Classified

36 ELECTRICAL AND ELECTRONIC EQUIPMENT

3612 Power, Distribution, and Specialty Transformers
 3613 Switch gear and Switchboard Apparatus
 3621 Motors and Generators
 3624 Carbon and Graphite Products
 3625 Relays and Industrial Controls
 3629 Electrical Industrial Apparatus, Not Elsewhere Classified
 3631 Household Cooking Equipment
 3632 Household Refrigerators and Home and Farm Freezers
 3633 Household Laundry Equipment
 3634 Electric House wares and Fans
 3635 Household Vacuum Cleaners
 3639 Household Appliances, Not Elsewhere Classified
 3641 Electric Lamp Bulbs and Tubes
 3643 Current-Carrying Wiring Devices
 3644 Non-current-Carrying Wiring Devices
 3645 Residential Electric Lighting Fixtures
 3646 Commercial, Industrial, and Institutional Electric Lighting Fixtures
 3647 Vehicular Lightning Equipment
 3648 Lightning Equipment, Not Elsewhere Classified
 3651 Household Audio and Video Equipment
 3652 Phonograph Records and Prerecorded Audio Tapes and Disks
 3661 Telephone and Telegraph Apparatus
 3663 Radio and Television Broadcasting and Communications Equipment

3669 Communications Equipment, Not Elsewhere Classified
 3671 Electron Tubes
 3672 Printed Circuit Boards
 3674 Semiconductors and Related Devices
 3675 Electronic Capacitors
 3676 Electronic Resistors
 3677 Electronic Coils, Transformers, and Other Inductors
 3678 Electronic Connectors
 3679 Electronic Components, Not Elsewhere Classified
 3691 Storage Batteries
 3692 Primary Batteries, Dry and Wet
 3694 Electrical Equipment For Internal Combustion Engines
 3695 Magnetic and Optical Recording Media
 3699 Electrical Machinery, Equipment, and Supplies, Not Elsewhere Classified

37 TRANSPORTATION EQUIPMENT

3711 Motor Vehicles and Passenger Car Bodies
 3713 Truck and Bus Bodies
 3714 Motor Vehicles Parts and Accessories
 3715 Truck Trailers
 3716 Motor Homes
 3721 Aircraft
 3724 Aircraft Engines and Engine Parts
 3728 Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified
 3731 Ship Building and Repairing
 3732 Boat Building and Repairing
 3743 Railroad Equipment
 3751 Motorcycles, Bicycles, and Parts
 3761 Guided Missiles and Space Vehicles
 3764 Guided Missiles and Space Vehicle Propulsion Units and Propulsion Unit Parts
 3769 Guided Missiles and Space Vehicle Parts and Auxiliary Equipment, Not Elsewhere Classified
 3792 Travel Trailers and Campers
 3795 Tanks and Tank Components
 3799 Transportation Equipment, Not Elsewhere Classified

38 INSTRUMENTS AND RELATED PRODUCTS

3812 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems, and Instruments
 3821 Laboratory Apparatus and Furniture
 3822 Automatic Controls for Regulating Residential and Commercial Environments and Appliances
 3823 Industrial Instruments for Measurement, Display and Control of Process Variables; Related Products
 3824 Totalizing Fluid Meters and Counting Devices
 3825 Instruments for Measuring and Testing of Electricity and Electrical Signals
 3826 Laboratory Analytical Instruments
 3827 Optical Instruments and Lenses
 3829 Measuring and Controlling Devices, Not Elsewhere Classified
 3841 Surgical and Medical Instruments And Apparatus
 3842 Orthopedic, Prosthetic, and Surgical Appliances and Supplies
 3843 Dental Equipment and Supplies
 3844 X-Ray Apparatus and Tubes and Related Irradiation Apparatus
 3845 Electromedical And Electrotherapeutic Apparatus
 3851 Ophthalmic Goods
 3861 Photographic Equipment and Supplies
 3873 Watches, Clocks, Clockwork Operated Devices, and Parts

39 MISCELLANEOUS MANUFACTURING INDUSTRIES

3911 Jewelry, Precious Metals
 3914 Silverware, Plated Ware, and Stainless Steel Ware
 3915 Jewelers' Findings and Materials, and Lapidary Work
 3931 Musical Instruments
 3942 Dolls and Stuffed Toys

3944 Games, Toys, and Children's Vehicles, Except Dolls and Bicycles
 3949 Sporting and Athletic Goods, Not Elsewhere Classified
 3951 Pens, Mechanical Pencils, and Parts
 3952 Lead Pencils, Crayons, and Artists' Materials
 3953 Marking Devices
 3955 Carbon Paper and Inked Ribbons
 3961 Costume Jewelry and Costume Novelties, Except Precious Metal
 3965 Fasteners, Buttons, Needles, and Pins
 3991 Brooms and Brushes
 3993 Signs and Advertising Specialties
 3995 Burial Caskets
 3996 Linoleum, Asphalt-Felt-Base, and Other Hard Surface Floor Coverings, Not Elsewhere Classified
 3999 Manufacturing Industries, Not Elsewhere Classified

49 ELECTRIC, GAS, AND SANITARY SERVICES

4911 Electric Services (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce.)
 4931 Electric and Other Services Combined (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce.)
 4939 Combination Utilities, Not Elsewhere Classified (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce.)
 4953 Refuse Systems (limited to commercial hazardous waste treatment facilities regulated under the hazardous waste management standards of the Resource Conservation and Recovery Act, Subtitle C, 42 U.S.C. section 6921 et seq.)

51 WHOLESALE TRADE - NON-DURABLE GOODS

5169 Chemical and Allied Products, Not Elsewhere Classified (Facilities primarily engaged in wholesale distribution of chemicals and allied products.)
 5171 Petroleum Bulk Stations and Terminals (Facilities primarily engaged in wholesale distribution of petroleum and petroleum products.)

Appendix 3

PROCESS DESCRIPTOR NOMENCLATURE

Use for Section C, question 3.c.

A List: Most Applicable to Article Manufacturing Processes

AA1	Bleaching
AA2	Cleaning - of metal
AA3	Cleaning - paint stripping
AA4	Cleaning - of equipment
AA5	Cleaning - other
AA6	Coating - adhesive application
AA7	Coating - paint application
AA8	Coating - other
AA9	Degreasing
AB1	Dyeing
AB2	Electroless plating
AB3	Electroplating
AB4	Etching
AB5	Metal casting/machining
AB6	Metal treatment (other than plating)
AB7	Painting
AB8	Paper manufacturing/treatment
AB9	Photographic film manufacturing or processing
AC1	Plastics molding/casting/extrusion
AC2	Printing
AC3	Soldering/welding
AC4	Stripping
AC5	Tanning
AC6	Wood pulping/treatment
AC7	Similar to
AC8	Other article manufacturing

C List: Most Applicable to Chemical Manufacturing

CP1	Purification
CP2	Separation
CP3	Formulation/blending
CP4	Chemical synthesis
CP5	Chemical breakdown
CP6	Chemical conversion
CP7	Similar to
CP8	Other chemical manufacturing

H List: Most Applicable to Storage and Handling

HA1	Above ground tank
HA2	Below ground tank (steel)
HA3	Below ground tank (fiberglass)
HA4	Tank inside building
HA5	Steel drum
HA6	Plastic drum
HA7	Fiber drum
HA8	Can
HA9	Carboy
HB1	Silo
HB2	Bag
HB3	Box
HB4	Cylinder
HB5	Bottles or jugs (glass)
HB6	Bottles or jugs (plastic)
HB7	Tote bin
HB8	Tank wagon
HB9	Rail car
HC1	Other storage and handling

T List: Use to Supply Additional Information if Necessary on Chemical Reactions

TA1	No reaction
TA2	Acylation
TA3	Alkylation
TA4	Amination
TA5	Ammonolysis
TA6	Aromatization
TA7	Calcination
TA8	Carboxylation
TA9	Combustion
TB1	Condensation
TB2	Dehydration
TB3	Dehydrogenation
TB4	Desulfurization
TB5	Diazotination and coupling
TB6	Double decomposition
TB7	Electrolysis
TB8	Esterification
TB9	Fermentation
TC1	Friedel-Crafts
TC2	Halogenation
TC3	Hydroformylation
TC4	Hydrogenation
TC5	Hydrolysis
TC6	Ion exchange
TC7	Isomerization
TC8	Neutralization
TC9	Nitration
TD1	Oxidation
TD2	Polymerization
TD3	Pyrolysis/cracking
TD4	Reduction
TD5	Silicate formation
TD6	Sulfonation
TD7	Other reaction

U List: Most Applicable for Describing Unit Operations for Any Process Category

UA1	Absorption/adsorption
UA2	Centrifugation
UA3	Cleaning/degreasing
UA4	Condensation
UA5	Crystallization
UA6	Desalting
UA7	Disintegration
UA8	Distillation
UA9	Drying
UB1	Dust collection
UB2	Evaporation
UB3	Fermentation
UB4	Filtration
UB5	Grinding/milling
UB6	Heat exchange
UB7	Humidification
UB8	Ion exchange
UB9	Melting
UC1	Mixing
UC2	Packaging
UC3	Pressurizing
UC4	Reaction
UC5	Screening
UC6	Scrubbing
UC7	Sedimentation
UC8	Separation
UC9	Settling
UD1	Soaking/wetting
UD2	Solvent extraction
UD3	Spraying/coating
UD4	Stripping

UD5 Other unit operation

E List: Use to Supply Additional Information
Regarding Equipment for Any Process Category

EA1	Absorption bed
EA2	Aerator
EA3	Blower
EA4	Boiler
EA5	Centrifuge
EA6	Compressor
EA7	Condenser
EA8	Cooler
EA9	Crystallizer
EB1	Digester
EB2	Distillation Column
EB3	Dryer
EB4	Evaporator
EB5	Scrubber/stripper/extraction tower
EB6	Extruder
EB7	Filter
EB8	Flash drum
EB9	Fractioning tower
EC1	Furnace
EC2	Heat exchanger
EC3	Holding tank
EC4	Mill/grinder
EC5	Mixer
EC6	Reactor vessel
EC7	Refrigeration unit

EC8	Rinse tank
EC9	Separator
ED1	Settling tank
ED2	Other equipment

P List: Use to Supply Additional Information
Regarding Phase Form for Any Process Category

PA1	Gas
PA2	Liquid (coherent)
PA3	Solid
PA4	Aqueous solution
PA5	Organic solution
PA6	Slurry
PA7	Sludge
PA8	Emulsion
PA9	Powder fines
PB1	Aqueous acid
PB2	Aqueous base
PB3	Metal product
PB4	Polymer mixer
PB5	Crude petroleum
PB6	Refined fuel/mixed hydrocarbon
PB7	Unrefined ore/minerals
PB8	Clay/cement
PB9	Animal byproducts
PC1	Vegetable byproducts
PC2	Wood chips/pulp/byproducts
PC3	Other phase form

Appendix 4

WASTE TREATMENT METHODS (Adapted from USEPA Form R Instructions)

Use for Section C, question 3.c., ONLY IF Treatment Operations is selected for question 3.a.

Air Emissions Treatment

- A01 Flare
- A02 Condenser
- A03 Scrubber
- A04 Absorber
- A05 Electrostatic Precipitator
- A06 Mechanical Separation
- A07 Other Air Emission Treatment

Biological Treatment

- B11 Biological Treatment - aerobic
- B21 Biological Treatment - anaerobic
- B31 Biological Treatment - facultative
- B99 Biological Treatment - other

Chemical Treatment

- C01 Chemical Precipitation - lime or sodium hydroxide
- C02 Chemical Precipitation - sulfide
- C09 Chemical Precipitation - other
- C11 Neutralization
- C21 Chromium Reduction
- C31 Complexed Metals Treatment (other than pH adjustment)
- C41 Cyanide Oxidation - alkaline chlorination
- C42 Cyanide Oxidation - Electrochemical
- C43 Cyanide Oxidation - other
- C44 General Oxidation (including disinfection) - chlorination
- C45 General Oxidation (including disinfection) - ozonation
- C46 General Oxidation (including disinfection) - other
- C99 Other Chemical Treatment

Incineration/Thermal Treatment

- F01 Liquid Injection
- F11 Rotary Kiln with Liquid Injection Unit
- F19 Other Rotary Kiln
- F31 Two Stage
- F41 Fixed Hearth
- F42 Multiple Hearth
- F51 Fluidized Bed
- F61 Infra-Red
- F71 Fume/Vapor

- F81 Pyrolytic Destructor
- F82 Wet Air Oxidation
- F83 Thermal Drying/Dewatering
- F99 Other Incineration/Thermal Treatment

Physical Treatment

- P01 Equalization
- P09 Other Blending
- P11 Settling/Clarification
- P12 Filtration
- P13 Sludge Dewatering (non-thermal)
- P14 Air Flotation
- P15 Oil Skimming
- P16 Emulsion Breaking - thermal
- P17 Emulsion Breaking - chemical
- P18 Emulsion Breaking - other
- P19 Other Liquid Phase Separation
- P21 Adsorption - carbon
- P22 Adsorption - ion exchange (other than for recovery/reuse)
- P23 Adsorption - resin
- P29 Adsorption - other
- P31 Reverse Osmosis (other than for recovery/reuse)
- P41 Stripping - air
- P42 Stripping - steam
- P49 Stripping - other
- P51 Acid Leaching (other than for recovery/reuse)
- P61 Solvent Extraction (other than recovery/reuse)
- P99 Other Physical Treatment

Solidification/Stabilization

- G01 Cement Processes (including Silicates)
- G09 Other Pozzolonic Processes (including Silicates)
- G11 Asphaltic Processes
- G21 Thermoplastic Techniques
- G99 Other Solidification Processes

